

Amendments To The Claims:

Please amend the claims as shown.

1 – 11 (canceled)

12. (new) An eddy current probe for electrical measurement methods, comprising:
a substrate with a resting surface and the resting surface comes to lie on a test piece;
two electrical components mounted on the substrate such that the probe with the substrate is flexible and the probe with the substrate can adapt itself to a different radii of curvature of the test piece;
a backing with a ferritic and/or magnetic material that at least partly covers at least one electrical component and is formed elastically;
an exciter coil as a first electrical component; and
a signal coil as the second electrical component,
wherein the exciter coil encloses a coil section of the signal coil and the signal coil and the exciter winding lie in one plane or on a surface of the substrate.

13. (new) The eddy current probe as claimed in claim 12, wherein the substrate is a flexible film.

14. (new) The eddy current probe as claimed in claim 13, wherein the film is formed from polyimide.

15. (new) The eddy current probe as claimed in claim 12, wherein the backing is formed by an elastic, sheet of a ferritic material.

16. (new) The eddy current probe as claimed in claim 12, wherein the backing is formed by a permanently elastic casting compound filled with ferrite particles.

17. (new) The eddy current probe as claimed in claim 12, wherein the probe has as an electrical component that is a coil and is arranged on the substrate in a planar manner.

18. (new) The eddy current probe as claimed in claim 12, wherein the probe has a ferromagnetic signal amplification.

19. (new) The eddy current probe as claimed in claim 12, wherein the probe is adaptable to radii of curvature of up to 50 mm.

20. (new) The eddy current probe as claimed in claim 12, wherein the backing is a gas-filled material.

21. (new) The eddy current probe as claimed in claim 12, wherein the exciter coil and the signal coil are arranged in one plane.

22. (new) The eddy current probe as claimed in claim 12, wherein a region to be examined is covered by the probe.